

The brand new Figaro and its features

Figaro line is the next step in the Rhapsody range, it is manufactured according to the same standard as its predecessor, with a particular attention to the quality of its parts, manufacturing process and the result – the perfect sound. Now, after 6 years of development, we can offer a much more efficient production and a much better sound quality thanks to our signature Self-Locking cabinet technique, mini-horn for tweeter and other unique features used in all our speakers, some of these features can be found in Vantage, our flagship product. Figaro line is the result of our hard work and dedication. We offer considerably lower prices than our competitors. This may be hard to believe and seem like another cheap promotional trick, but the truth is we do sell a quality product for a very attractive price. It comes as no surprise knowing that our company is very ambitious and is constantly looking for new ways to offer our clients the best price to quality ratio.

At AudioSolutions we feel that although veneer is a nice, high-quality finish, it already feels old-school and looks somewhat incongruous in contemporary living room interiors. This is why we have gradually changed our production range to more modern looking speakers. In fact, I think this is one of the reasons why the popularity of stereo sets is dropping. Young sophisticated urbanites have beautiful modern homes and they simply don't want classical looking wooden boxes.

Figaro was first presented to general public in Germany at the event called *North Germany HiFi days*. Just like the other AudioSolutions's products, Figaro made an unforgettable first impression:

“The newcomer Figaro has the ability to play quietly or pretty loud for long hours without annoying the listener.”

“The sound was lively, detailed and well-controlled.”

“I can tell you that you have created a great speaker. The bass is very deep and well controlled. The mids are the best: highly informative yet very harmonious. The highs are very sensitive. Well done, Amigo!”

This is just some of the feedback we got after our first public presentation. Is there anything more to add? There is a lot! With the new custom Sb Acoustics drivers that equip ER (extra rigid) cones we finally have something that we had striven to achieve for a long time in this price range. A performer that can be easily put next to twice as expensive high end speakers and make them look like a baby toy. Such fast transient response and sound clarity can be found only in much more expensive speakers.

Our Self-Locking cabinet technique (the technique of very rigid enclosure joints with properties identical to those featured by monomythical cabinets) allows a very good bass control and deep bass extension even in the smallest Figaro models. It is truly remarkable what a properly designed cabinet can do. Usually cabinets are simply made of six walls joined together and one extra bracing inside the cabinet for a slightly better cabinet inertia. Such cabinets usually lack bass attack and clarity because many different frequencies resonate in the cabinet itself and the decay of the accumulated energy is very slow compared to the speed at which the audio signal is changing. We hear a muddy and resonant bass, typically equalized in one or two regions, some people call this effect the *booming sound*. This is a

typical problem of speakers under 10000 Eur. Our Self-Locking cabinet is designed in a completely different manner. It is possible to achieve much better sonic properties with only slightly higher expenses if the engineer knows what he is doing and the financial department gives the green light for spending just a little bit more. The key in eliminating unwanted vibrations is to combine materials with different resonance properties so that they damp each other. The simplest way to do this is to use materials of different thickness or make a sandwich of different materials. We did both. The thickness of the Figaro cabinet varies from 18mm up to 50mm in different areas, and starting from the middle of the speaker all the back part is made from sandwich materials (in the back of the speaker the greatest pressure is always present and this is a critical area).

Combining materials is nice, but we have gone even further. We have modelled every surface in the speaker and made vibration analysis of it as a whole, so we can see how important it is to join different surfaces correctly. It is remarkable what modern software can do. There is a very big difference between a simple joint between two surface edges and our Self-Locking joint. Without the Self-Locking joints the cabinet was good but not perfect, after improving our joining technique the cabinet became almost monolithic. The key concept here is that all surfaces act as one big sandwich dampening each other out. A usual surface sandwich works alone, but joined together in a locked joint they become one big system of different materials working together. The result is no booming, tight and fast bass, very clear mids and considerably lighter speakers. I could easily say that we reduce weight by approx. 50-70%. For instance, if Figaro M weights 41kg, an equivalent speaker would weigh approx. 61kg-70kg.

To reduce tweeter sharpness at higher volumes (a typical soft dome problem) we've introduced the mini-horn which is used in all our speaker systems, and on top of that we have the wave guide that helps to shape sound-front a little bit. We've also chosen a slightly smaller tweeter than usual to have a faster response in the very top end. While bigger tweeters perform well in two-way systems where a greater power handling is needed (sacrificing a decent amount of reaction time, thus clarity in the top end), Figaro is designed to be a three way speaker and we can benefit from a smaller tweeter with a much lighter membrane which directly translates to a faster response and lower distortion.

Let us talk about crossover types – all Figaros, except bookshelf and centre, are three ways. Why three? Well, there are two main opinions: one states that two ways is better because the speaker is closer to the point source and there is only one crossover point, meaning more homogeneous sound, the other opinion is that three ways is better because the engineer can choose crossover points so that they do not touch the critical area where the human ear during centuries of evolution has become the most sensitive (800-2000Hz). I myself favored two ways at first, because the design is much simpler and cheaper, however, now almost all of our products share three ways (even bookshelf Vantage), because not having a crossover point in the area critical to the ear really makes a difference. All the products designed this way received the best feedback, usually along the lines of "highly detailed and clear midrange". I am not saying that two ways is much worse, in fact, we do have some bookshelf designs with two ways, but we are forced to use more complicated drivers and raise the crossover point as high as possible in order to step away from the critical crossover area.

A great leap forward for us is the improved “stealth grille” that we use in the Overture series. Let’s start with the common grill concept. It is an additional panel *on top* of the speaker’s front baffle. No need to say that the listener is forced to change the front baffle geometry and introduce early reflections which eventually change the overall speaker’s sound concept. The main concept of grilles is wrong from the very beginning. That’s why people are forced to remove grilles when they are listening to speakers. Our protective grilles all share our unique technical solution - one speaker has two different FRONT Baffles (one with protective cloth, the other without) that share the same geometry. When scientists talk about reflections, standing waves, scattering etc. the key variable here is geometry. Geometry is to blame for all the effects of poorly designed grilles. By applying typical grilles on top of the front baffle you change the speaker’s geometry and the first reflections from the plastic grill mesh or from the MDF edges (usually at least 1cm thick) become the most audible. Our “stealth grilles” have the same geometry and the listener is changing front baffles instead of adding an additional baffle to the front baffle. The cloth itself rarely interacts with the sound waves because the wave lengths even at high frequencies are much longer than the thickness of cloth fiber. Needless to say, our unique grill decision is neither audible nor measurable. At shows we play one speaker with a grill and one without. No one has ever told us about the difference in sound!

What I am personally most proud of is the fact that we offer as many as 17 different finishes allowing even the customers with the most exquisite taste find their colour. Besides the typically popular high gloss Xirallic finishes people can find such unique finishes as the 3D textured high gloss finishes, or three different colours of linen in high gloss. Such new finishes, never seen or used before allow clients and interior designers to make speakers the centerpiece of the living room or turn them into a decorative element of the interior rather than trying to make the speakers as invisible as possible. Our goal is to enable young homeowners to choose such a finish that is be pleasant to look at and can seamlessly blend in with the interior of the living room.

WBT connecting posts are standard now in Audio Solutions, nothing more to say here ☺ If one needs high quality terminals, WBT is the only choice, because most others are rebranded Chinese mockups.

All the people who participated in the unofficial auditions prior to the official launch of Figaro were shocked by how we’ve managed to use many more expensive decisions than in our previous ranges and improve the sound quality, when the selling price is actually considerably lower than it should be for such a high quality speaker. Some might think that cheaper equals worse, but personally I believe that even amateurs can tell the difference between bad sounding speakers and good sounding speakers and it is time to give people an opportunity to purchase high-end speakers with a variety of finishes at an affordable price, so in most cases here, lower price will act like stimulator to choose AudioSolutions.

We will demonstrate our new Figaro speaker in sound cabin located in Hall 1 C13 place. Company founder Mr. Gediminas Gaidelis will explain and demonstrate all features of Figaro speakers. For special appointment for interview please contact info@audiosolutions.lt